Comprehensive, clear, and exact in all its teachings, and presenting in its successive editions a fair and full exposition of our knowledge in reference to the pathology and therapeutics of the various diseases of which it treats—comprising all such as are liable to fall under the notice of the practitioners located in different portions of the United States—we know of no systematic treatise on the practice of medicine, in the widest signification of the term as now understood, which is better adapted as a work of reference to the physician actively engaged in the engrossing duties of his profession, or through the pages of which, the advanced student will be presented with better delineated and more truthful pictures of diseases, or sounder and more explicit practical directions for their management. D. F. C.

ART. XXI.—*Guy's Hospital Reports.* Edited by SAMUEL WILKS, M. D., and ALFRED POLAND. Third Series, Vol. III. London, 1857. 8vo. pp. 513.

THE first volume of *Guy's Hospital Reports* was edited by George H. Barlow and James P. Babington, in 1836. Impressed with the importance of recorded experience in the advancement of medical knowledge, they determined to contribute to the general stock a collection of facts drawn from the largest repository of disease in London. They supposed, also, that it was incumbent upon them, and upon all who have enlarged opportunities of witnessing disease and its treatment, to collect and record their observations, that they may be preserved from oblivion and transferred to the common stock of knowledge. A volume of great value has appeared almost every year since the publication was commenced.

Guy's Hospital is the largest in London; it contains within its wards a constant succession of above five hundred patients; thus amounting in the year to between three and four thousand. These patients are not admitted at the recommendation of managers, but they are selected by the attending physicians and surgeons as those whose diseases are the worst and most acute, or the most interesting and instructive, amongst a concourse of patients who present themselves upon the regular days of admission. The out-patients prescribed for are no less than fifty thousand. The annual number of accidents admitted amounts to nearly six hundred. Records of all the cases admitted are kept by the senior students, who form a Clinical Society, of which some notice was given in the July number of this journal for 1844. With such material to be disposed of, with editors of ability and industry, *Guy's Hospital Reports* must be looked upon as among the most valuable contributions to our general stock of experience.

This volume contains twenty original communications, eleven wood-cuts, and nine lithographic plates. The following is an analysis of its contents:—

I. *A Report of Seventy-two Cases of Tetanus occurring in Guy's Hospital since the year* 1825. By ALFRED POLAND.

In the introduction to the first volume of the second series of *Guy's Hospital Reports*, the editors state that they purpose, in the new series, to illustrate the different classes of disease by the aid of series of *reports* collected within the walls of the hospital, and furnished by the books of the Clinical Society. Previously to that time their chief energies had been expended in giving to the medical world, in finished treatises, the inferences they deduced themselves from the observations collected. The very first report they published, which was upon the cases of hernia, was by the author of the one we are about to examine.

This paper of Mr. Poland's occupies eighty-eight pages. He commences by stating concisely *all* the cases which have occurred, which it is important to bear in mind, as recorded cases, generally, are those only having a successful issue. They are arranged as they occurred in the several years, giving the sex, age, constitution, habits, previous ailments or injuries; the supposed cause and period of accession thereafter; the date and state of the weather at the time of the seizure; the state of the winds on the day and two preceding days of the attack; the temperature at and before the date; the state of the wound at the time; any peculiarity in the symptoms; the treatment; the duration; the results; and mode of dying; and, lastly, the post-mortem appearances. They are then analyzed and reviewed in the following order:—

1. The frequency of the disease.
    1. In reference to hospital admissions.
    2. In reference to hospital deaths.
2. The sex.
3. The age.
4. The constitution, diathesis, regimen, and habits.

    (2–4) Condition of body.

5. Season of the year, climate, &c.; condition of atmosphere.

    (2–5) Predisposing causes.

6. Form of the disease.
    1. *Idiopathic.* Exposure.
    2. *Traumatic.*
        1. Acute.
        2. Subacute.
        3. Chronic.

    Exciting cause.

7. Interval between probable cause and first appearance of symptoms.
8. The state of the wound at time of occurrence of symptoms.
9. The peculiarity of the symptoms.
    1. Premonitory.
    2. Specific.
    3. Decline.
10. Duration of the disease; ratio of recovery and mortality; the mode of dying; and prognosis.
11. The morbid appearances.
12. The treatment adopted.
    1. Local.
    2. Constitutional.

In addition, the important points of his own cases are compared by Mr. Poland with those of the cases recorded by Dr. Lawrie, from the Glasgow Infirmary, and those of Mr. Peat and Dr. Morehead, from the Sir Jamsetjee Jejeeboy Hospital, at Bombay.

Section I. *The Frequency of the Disease.*—In 32 full years there occurred 72 cases of tetanus, in Guy's Hospital, in 113,020 total admissions, making an average of .0063 per cent.; and there were 62 deaths from tetanus in 11,052 total deaths, or .056 per cent. Of these, all but three had a coexisting or previous lesion of surface, they were called traumatic, and hence might be ranked and included under the surgical class of cases. Thus there will be 69 cases of tetanus with lesion of surface to 64,368 cases admitted with external lesion and surgical disease, being .0107 per cent.; and 61 deaths from tetanus to 4,218 cases of death from external lesion and surgical disease, being 1.444 per cent. In the Bombay Hospital, from 1848 to 1853, 0.8 per cent. of the total admissions were of tetanus, and 3.9 per cent. of the total deaths. Dr. Leith, Registrar of Deaths at Bombay, returns 1,716 deaths from tetanus during the same six years, and states the percentage to be 2.5 on total deaths from all causes. In London, in six years, in 345, 132 total deaths, 110 of tetanus, or .0031 per cent. In England, in the same space of time, the total deaths are 2,431,602, and 759 are of tetanus, being .0031 per cent.

In these calculations we have given the percentage as we find it in the report. Some of them will be observed to be incorrect, being just ten times too low; .0063, .056, and .0107, should be respectively .063, .56, and .107; .0031, in both instances, should be .031. In fact, the only correct calculation made is that giving 1,444 as the percentage, when, out of 4,218 cases of death, 61 are from tetanus. Such errors are very annoying, and should be carefully avoided, as they can be readily passed over unperceived. All these percentages are cited as if correct in the review given of this report in the last number of the *British and Foreign Medico-Chirurgical Review* (April, 1858); and as the numbers from which they are calculated are not given, the reader is, therefore, not furnished the data for detecting the error.

For the purpose of comparison, we have calculated from the few tables we have at hand the number of cases of tetanus that have occurred in several places in the United States. In 1854, in New York City, the number was 49, of which 35 were males and 14 females. The total deaths during the same year being 28,568, we have 1 death from tetanus in 583, or .17 per cent. In 1857, in Philadelphia, there were 13 deaths in a total of 10,895, or one case in 838, which gives .12 per cent. From the tables of Dr. Emerson, published in this journal in the years 1827, 1831, and 1848, we have that from the 1st January, 1807, to the 1st January, 1827, in a total of 53,004 deaths in Philadelphia, 125 were from tetanus, giving .236 per cent.; from 1st January, 1827, to the 1st January, 1830, there were 29 cases in 16,579 deaths, giving .175 per cent.; from 1830 to 1840 there were 51 cases in 49,686, giving .103 per cent. From these data the disease would appear to be becoming less common in this city. In Massachusetts, as we learn from the last report made to the commonwealth, in five years the total number of deaths from all causes was 104,873; of these, 55 were from tetanus, or 1 in 1,907, which gives .05 per cent. These data are sufficient to show that tetanus is much more common in this country, even in the more northern portions, than in England. In Charleston, S. C., in 1856, in 1,428 total deaths, 57 were from trismus nascentium, and 6 from tetanus, giving for tetanus alone a percentage of .42, and for both diseases 4.42.

Section II. *The Occurrence of Tetanus in the Two Sexes.*—Of the 72 cases in Guy's Hospital, 12 were females and 60 were males; the ratio, therefore, between the two sexes is 1:5. In Glasgow there were 10 females to 42 males, a ratio of 1 to $4\frac{1}{5}$. From the report of the registrar-general of England, it appears that in London, from 1843 to 1854, the proportion of males to females dying of tetanus was 156 to 72, being $2\frac{1}{6}$: 1. In England, from 1847 to 1854, 734 to 370, being nearly 2 : 1. If those cases where death occurred under five years of age be excluded, we have, in London, from 1843 to 1854, 124 males to 45 females, being about $2\frac{3}{4}$: 1.

Section III. *Tables of the Ages in which Tetanus occurred.*—In Guy's Hospital, about 40.27 per cent. were between 10 and 30 years of age; in Glasgow, about 55.1 per cent., and in London, from 1843 to 1854, omitting those under 5 years, 36.09 per cent.

Section IV. *Constitution, Diathesis, Condition of Body, Habits, and Previous Health.*—The constitution and diathesis are recorded in only fifteen cases; but, according to them, the very quiet and cheerful, the very irritable and excitable, the strumous and fair, and the very strong, are equally liable to the disease, and it is in all equally fatal.

The condition of body is noticed in 46 cases. Separating these into classes, the healthy, muscular, and fine-made, and the robust and well-developed give 5 recoveries and 30 deaths; whereas, of the unhealthy, spare, and emaciated, none recovered, all of them, 11 in number, died. The habits are mentioned in 16 cases; the dissipated and intemperate have an equal ratio with the temperate, 2 recoveries to 5 deaths. Judging from the statistics from Bombay, it appears that Europeans, whether in their own country or in India, are peculiarly exempt from the disease, whilst natives of warm climates are greatly susceptible.

In our Southern States tetanus seems to be much more frequent among the blacks than the whites; in Charleston, for example, from April, 1857, to April, 1858, there were 8 deaths from trismus and 2 from tetanus among the whites, and 37 from trismus and 8 from tetanus among the blacks, while in the total deaths there are but about one-third more of the latter than of the former.

Previous diseases, injuries, complications, &c., have been noticed in only 12 out of the 72 cases. In two of these twelve cases, the patients were subject to epilepsy; in two of them, children nine and ten years of age respectively, there were intestinal worms, in one lumbricoides, in the other ascarides; in three of them, the patients were subject to rheumatism. Tetanus is very often ushered in by symptoms of rheumatism, and the question as to how far the two are allied has not yet been sufficiently discussed.

Section V. *Season of the Year, and Climate, &c.*—An analysis of the cases is given according to the months in which they occurred; the temperature is added, the state of the weather, and the direction of the wind the day of the attack, and for the two or three days that preceded. Those cases which occurred previous to admission are separated from those in which the disease took place afterwards, when it is to be presumed that they would be little liable to wet, exposure, and sudden change of temperature.

Of the 72 cases, 41 were admitted with the disease, and in 31 it supervened after admission. Of the 41 cases admitted with tetanus, 14, or 34.14 per cent. can be distinctly traced and associated with exposure and sudden change of temperature; as to the other 27 cases, there is no evidence recorded one way or the other. Of the 31 in which it supervened after admission, in 3 there was direct evidence of exposure to draught and cold previous to the attack. The table shows that there was a greater amount of tetanus during the westerly winds; which, it must be recollected, however, prevail in England. Larrey states that tetanus is most frequently met with during N. N. W. winds. As to the season of the year, the list from Guy's Hospital and Dr. Morehead's Bombay returns give the highest ratio in the summer months; the Glasgow in the temperate months, and the published cases and Mr. Peat's Bombay returns in the cold months. This discrepancy, at least, will not lead us to place too much confidence in special returns. In regard to the influence of the season on the recovery from tetanus, an equal discrepancy exists.

Mr. Poland gives, in addition, some interesting records on the occurrence of tetanus after naval and military engagements, drawn chiefly from the accounts of Baron Larrey, which contain facts bearing strongly in favor of atmospheric influence as the real point of causation.

Section VI. *Form of the Disease, including the supposed Exciting Cause.*—In Guy's Hospital, 3 of the cases were idiopathic, being 4.16 per cent.; in Glasgow the percentage was 3.84, and at Bombay 38.46. The severity of the symptoms bore no relation to the degree of local injury. In 86.56 per cent. tetanus occurred after wounds of the extremities. As to the relative frequency of tetanus in injuries and surgical diseases, the returns are too incomplete to give any satisfactory deduction.

Section VII. *Interval between Injury and Symptoms*:—

	Previous to the 10th day.		
Guy's	31 cases in	63 or	49.2 per cent.
Glasgow	30 "	48 "	62.5 " "
Bombay	18 "	28 "	64.29 " "
Published cases	69 "	166 "	41.56 " "

	From 10th to 22d, inclusive.			Above 22 days.	
Guy's	26 cases in	63 or	41.26 per cent.	6 cases or	9.52 per cent.
Glasgow	18 "	48 "	37.5 " "	no cases.	
Bombay	8 "	28 "	28.57 " "	3 cases or	10.71 " "
Published cases	82 "	166 "	49.39 " "	15 "	9.03 " "

Other tables are given, which show that the interval preceding the attack does not determine the form of the disease, that is, that the disease is sometimes of the severest and most rapid description where an interval of ten days has elapsed. On the other hand, when the disease follows close upon the injury, it is for the most part uncontrollably rapid and fatal.

Section VIII. *State of the Wound at the time when Tetanus sets in.*—In 1 case it was quite recent; in 16, inflamed or suppurating; in 19, unhealthy, sloughing, and gangrenous; in 14, scabbed over, healing, nearly healed, and healthy; and in 7 healed, or said to be healed. Of the 7 cases, however, in which it is said to be healed, Mr. Poland adds afterwards, that there was only one case wherein it was observed that the wound was actually healed at the time of the occurrence of the tetanus.

Section IX. *Peculiarity of the Symptoms.*—Notice is made of premonitory symptoms in only 4 cases; in two there were darting pains from the wound up the arm, before the attack; in the others, great pain in the wound, and in one of them great pain in the back also. In 4 cases there was a remission of the symptoms; in one for 2 days only, in another for many days, and in two for 13 days. As respects the mode of dying, 19 died during a paroxysm with spasm and convulsions; 13 from asphyxia and suffocation, and 10 from exhaustion.

In one case, the heart's action continued for some time after the patient had ceased to breathe.

Section X. *Duration of the Disease in the Fatal Cases.*—Of the 62 cases which terminated fatally, 32, or 51.62 per cent., died before the end of the 5th day. There is a statement generally quoted in medical works, to be found, if we are not mistaken, in the writings of Hippocrates, that if tetanus continue over a period of twenty-two days, recovery is certain. Two of the cases at Guy's were fatal over this period, one on the 28th, the other on the 32d day. It is curious to notice also that ten died on the 7th and eleven on the 4th day, while on no other day did more than five die, and then it was on the 3d and the 6th, or the days immediately preceding them. A table is given which shows that there are no grounds for the supposition that the season of the year has any influence on the short duration or protraction of the disease.

Section XI. *Post-mortem Appearances.*—Of the 62 deaths, 18 were not examined, and of the remaining 44, in only 34 were the inspections recorded. The brain was examined in 20 cases; in 11 it was healthy, healthy and firm, with nothing remarkable, with nothing morbid in colour or consistence; in 9, it was congested, darker than natural, dark and flabby, pinkish with ulcerations on under surface of the anterior lobes, and decomposed. The spinal cord was examined in 19 cases; in a few, it was redder than natural, congested, and softened, but in the greater number there was nothing abnormal. The condition of the nerves at the seat of the wound was marked in 14 cases; in five they were inflamed. The heart was violently contracted in only one case; and in this, the patient died on the second day from suffocation, after laryngotomy had been performed for his relief. In 28 cases in which the condition of the lungs is given, in 7 they were congested, in 3 pneumonic, and in 4 apoplectic. The larynx, in one case, in which the patient died in a paroxysm, was found closed by the epiglottidean folds being caught in the rima. In the condition of the other organs of the body, there does not appear to be anything of importance to be noticed.

Section XII. *The Treatment adopted.*—No benefit was experienced from the local measures, which consisted in laying freely open the wound, in amputation, in division of the nerves near the seat of the wound, in baths, and in applications of every description to the wound, the spine, the neck, spine and abdomen, and to the region of the diaphragm. The extraction of a tooth, in order to administer food, in one case, was followed by immediate death. In the constitutional treatment of the cases, those medicines which support the system, and which would render the patient more able to fight against the exhausting disease, seem to have been most efficacious. At all events, in the 10 cases of recovery quinine was given in 7, and in the others wine, musk, and tonics. Of the 25 cases in which quinine was given, 7 recovered; the doses were about one grain per hour, given every third or fourth hour. Cannabis indica and chloroform, remedies which are in vogue in the treatment of tetanus in this country, were of no service; in most of the cases in which chloroform was given, the disease was aggravated.

II. *On Purpura and its Connection with Splenic Disease.* By S. O. Habershon, M. D.

After some short prefatory remarks upon the varieties of purpura, the symptoms of the disease, the pathological conditions found in the fatal cases as they are generally given by authors, its causes and its treatment, Dr. Habershon gives a history of fourteen cases which occurred under his own observation. Five of these were cases of purpura hemorrhagia, and three of these proved fatal.

At the *post-mortem* examination made in the three fatal cases, the spleen was found to be diseased, and "it was the only structure presenting evidence of disease which could not be looked upon as the effect rather than the cause." The enlarged gland was of a dull red colour, and studded throughout with pale yellow spots, from one to three lines in diameter; they were connected with the capillary circulation, and consisted of cells, nuclei, and granules. The appearance of the organ is thus described in the first case, where the affection was most marked.

"The spleen was pale, soft, of a dull red colour, and contained very numerous light-coloured masses, about the size of peas, throughout the whole of its substance. These pea-shaped masses, on microscopic examination, were found to be connected with the splenic capillaries, a larger capillary vessel being observed to be connected with one side of the mass, and on the other were several smaller vessels, but it could not be ascertained whether these ramified over or passed through the structure. The rounded mass consisted of granules and cells; several of them were irregularly aggregated together so as to constitute the pea-shaped mass before mentioned; splenic cells were observed of various sizes generally about the size of white corpuscles of the blood, some contained a distinct nucleus, others granular matter."

It would seem to be the fashion at the present day to locate the cause of any unknown disease in one or the other of the ductless glands. As nothing is known about their uses in the economy, there is nothing to check the fancy, in regard to the effects of changes they may be found to undergo. Dr. Habershon considers the case just mentioned to confirm the idea that "the function of the spleen is in close connection with the metamorphic condition of the blood," and also that "acute changes in the Malpighian bodies *is* one of the causes of purpura hemorrhagica." To prove either of these propositions would require some reasoning in a circle.

Nevertheless it does seem most probable that the primary cause of purpura is not the condition of the blood itself. In this disease, relapses not unfrequently occur after all external signs of the affection have disappeared, and, as Barthez and Rilliet remark, the long duration of the disease in many cases presupposes that the total mass of the blood has been several times removed. (*Mal. des Enfans*, tom. ii. p. 328.) If, therefore, the blood continues to be extravasated, it is logical to place the seat of the disease, not in the blood itself, but either in the capillary vessels that preside over its transudation, or in the agents that preside over its formation. The spleen may be one of these agents, and therefore it may be concerned in producing what may be the cause of purpura.

Some things were said in the interest of medical literature, in the *British and Foreign Medico-Chirurgical Review* for April, 1858, in a review of Dr. Habershon's work on "Diseases of the Alimentary Canal," which he would do well to hearken to. "We do not expect a medical writer to wield the pen of a Macaulay in detailing the history of disease, but we do require accuracy of expression, and some adherence to grammatical rules."

III. *Anatomical Description of a Double Fœtus.* By S. O. HABERSHON, M. D.

The monster consisted of two female fœtuses, of about seven and a half months, of the character described by St. Hilaire as synotus. The description given of the external appearance of the monster is very minute, as is also that of the internal arrangement of the organs, which were carefully dissected. Two plates, containing five figures, are added to assist this description. The only fault to be found with the paper is the name *synotus*, for the monster had four separate and distinct ears. There was a single head; the face on one side was perfect, but on the other there was a single eye, a small flattened nose, rudimentary lips, and external ears situated low down. It would be more correct, therefore, following the classification of St. Hilaire, to place the monster between the janiceps and the iniops, which, with the synotes, form the three groups of the family sycephalus. There are fewer examples of the group to which this monster belongs than of the others.

IV. *Select Surgical Cases.* By J. COOPER FORSTER.

Three of these cases are of tracheotomy for the removal of foreign bodies from the air-passages. In performing this operation, Mr. Forster recommends not waiting for the cessation of the hemorrhage before opening the trachea. In this, he differs from Dr. Gross, who has written most extensively upon this subject, and M. Trousseau, who has had the largest personal experience. Nothing is said in this paper of the dangers of the operation, which are very variously estimated by writers on the subject. For example, while Dr. Gross says "that there is hardly an operation in all surgery he would not rather undertake," we have heard M. Trousseau declare that it is "a physician's operation rather than a surgeon's—one of those little operations which every medical man should perform." Within one week from the time we heard Trousseau make this declaration we saw him, in a case of croup, assist his interne to pass the canula directly through the trachea into the œsophagus, the bistoury having previously freely removed every impediment to such a proceeding.

One of Mr. Forster's patients, a pale, delicate little child, ten months of age, died four hours after being removed from the table, and he adds that "there cannot be a doubt that the loss of blood necessarily attendant upon an operation of this description in so young a child, was a direct and immediate cause of its dissolution."

Under the head of "Injuries to Veins," three cases are given of fatal hemorrhage from wounds of the following veins: the internal jugular, the popliteal, and the cephalic. The application of ligatures to bleeding veins is urged, as at all times to be preferred to allowing any patient to lose even a small quantity of blood.

Five cases of extravasation of urine in children are added. In all cases of the kind occurring in children, independently of accident, Mr. Forster believes that the extravasation arises from a stone becoming impacted in the urethra, giving rise to ulceration of the membrane. The practical directions he gathers from these cases are as follows:—

"1. Attend to the earliest symptom, viz., retention of urine in children.
2. Incise the parts freely into which the urine has extravasated.
3. Search for and remove the calculus immediately.
4. Do not pass the catheter."

V. *Remarks upon some of the Specimens of Diseases of the Bone contained in Guy's Museum, especially those styled Osteo-sarcoma and Myeloid, with reference to the Question of Malignancy.* By Samuel Wilks, M. D.

From some general remarks at the beginning of his communication, we find that Dr. Wilks does not believe that "cancerous" and "malignant" are convertible terms. He believes that cancerous tumours, that is, tumours containing the anatomical elements called cancerous, are not all malignant—in which we would say *en passant* that we do not agree with him—and again, and here we do most fully agree with him, that some tumours are malignant, which do not contain any of these elements.

Some pathologists, as, for example, Lebert and Bennett, would give up the word *malignant* altogether. The former exclaims that in using such a term we are no better than the common people, who divide diseases into those that are fatal, and those that are not, or than shepherds, who classify plants as eatable and as venomous. If the question as to the malignancy of a growth is very unscientific, it is nevertheless, as Dr. Wilks says, the most important which can be asked concerning it. The truth is that we cannot get along, even if it should be thought desirable to do so, without such words as "malignant" and "benignant," or some equivalent ones. These are certainly decidedly preferable, and more correct than any substitutes that have been proposed, not excepting the "general" and "local" of Lebert.

The most profound anatomical research has not yet told us the cause of the malignancy of certain growths. Aided by the microscope, a certain pathological school thought that nothing would remain unknown. By this instrument, it was said, the anatomical elements existing in a tissue can be determined, and it is these that give it its properties. But tissues having, for characteristic anatomical elements, cancer cells, epithelial cells, fibro-plastic elements, cartilage corpuscles, and the so-called corpuscles of bone, have all been found to be malignant. The chief heterology, in malignant growths, according to the most skilful and candid observers, is now conceded to be the disorderly crowding of their elements. The distinction between innocent and malignant tumours is, as Paget says, probably one, not of mere visible structure, but of origin and vital properties, and upon these subjects it is more pleasant than useful to speculate. What we here want, what we really need, are facts, and hence the paper of Dr.

Wilks is one of real value, containing, as it does, important facts in connection with some of the cases of the carcinomatous, osteo-sarcomatous, and myeloid tumours contained in the magnificent museum of Guy's Hospital. In the carcinomatous, the whole bone is invaded by the disease, and destroyed. In the early stage of the disease, the cancerous material is seen to be deposited, for the most part, in the medulla of the shaft of the long bone, though sometimes the disease approaches in its mode of growth the osteo-sarcomatous, and springs decidedly from the periosteum. In the so-called osteo-sarcoma the growth appears wholly to proceed from the periosteum, until a large tumour is formed around the bone, so that in all cases the shaft is still seen running through the tumour, and is thus distinguishable from the perfect cancer. In all the cases, to which a history is attached, "the disease has returned within the body." Osteo-sarcoma is therefore a malignant disease, though the anatomical elements are those found in the normal, healthy tissues of the body.

One case of *osteoid cancer* is given, and the preparations of the extremely interesting specimens described. The osseous deposits, commencing in the bone, were repeated in the lungs and other organs.

With reference to the purely *enchondromatous tumours,* he declares that the want of a large number of observations renders it impossible to speak with any degree of certainty respecting their character for malignancy.

Myeloid tumours are believed by him to be innocent; by this term "meaning to imply that the result of all observations made by others, as well as ourselves, is, that these tumours, when removed, do not return, and if the patient has died soon after the operation, no other morbid growths have been found in the body." Some of the specimens described are examples of the fibro-myeloid disease, and others of the cysto-myeloid, the loculi into which the tumour is divided by processes of the periosteum passing into it being filled with fluid. The general anatomical formation of these "myeloid tumours is decided and peculiar; a large round tumour is formed at the extremity of the shaft of the bone, forming a striking contrast to the large, long, and irregular-shaped, destructive carcinomatous tumours, or the osteo-sarcomatous growths which simply spring from the outside of the bone."

It is not altogether correct, however, this statement, that the result of all observations declares their innocence, for Mr. Paget believes that they are sometimes malignant, and records two cases in support of his opinion (*Lect. on Surg. Path.,* vol. ii. p. 228).

Two lithographic plates, containing twelve figures, are attached to this paper. Ten specimens of myeloid disease, one of osteoid cancer, one of carcinoma, and one of osteo-sarcoma, are there represented.

VI. *On the Treatment of Purulent Ophthalmia.* By John F. France.

The volume for 1855, of *Guy's Hospital Reports,* contains a paper upon the same subject by this author, who enjoys considerable reputation in London as an oculist. In that paper a combination of therapeutical means constituting his mode of treatment is recommended, which is thought by the author to possess some originality.

The treatment consists in division of the external canthus, daily local depletion by scarification and leeching, the use of a collyrium of nitrate of silver, from three to eight grains to the ounce, unceasing ablution with poppy-water and alum, one drachm to the pint, the exhibition of mercury, and the use of quinine with a moderately nutritious diet.

From the history of one of these cases, we learn that the patient, a man, suffering from chronic ophthalmia, was inoculated for his cure with purulent ophthalmia at the London Ophthalmic Hospital. Mr. France says of this, with truth, that "the responsibility of exciting so formidable a disease will not lightly be incurred by practitioners who esteem their patients' welfare the paramount consideration." He might, and with justice, have spoken much more harshly than he has chosen to do.

VII. *Ophthalmic Cases.* By John F. France.

The first case is one of melanotic cancer of the eye, in which the disease having then lasted nine years, the globe was extirpated. The optic nerve was unsound at the place of division, being infiltrated with melanotic deposit. About two months afterwards "painful lumps formed about her legs and body," and the patient died exhausted seven months after the removal of the primary seat of disease.

In the second case the ocular globe was enucleated, after the method of M. Bonnet, on account of a tumour embracing half the circumference of the globe, and occupying the anterior chamber, though the cornea remained clear. The operation was performed in May, 1857, and no more of the history of the patient is added, excepting that she was convalescent in a few days. The same operation was performed in the third case, with the same result of convalesence in a few days. Both of these cases are very unsatisfactory; in fact, they are useless so far as the conveying of any useful information is concerned.

The fourth case is one of fungous hæmatodes of the globe, treated without operation. The patient, a girl, two and half years of age, had been affected for fifteen months, when she entered the hospital, and she died about seven months afterwards. In this case, the course of treatment adopted was based upon the principle, one that should never be forgotten, that "to prolong life to the utmost span is the acknowledged first duty of the practitioner." These cases are illustrated by a plate containing three figures, which represent the appearance of the three eyes removed by operation.

VIII. *Cases of Idiopathic Fatty Degeneration; with Remarks on Arcus Senilis.* By Samuel Wilks, M. D.

By *idiopathic* fatty degeneration, Dr. Wilks means a fatty degeneration which has no evident cause. In the cases he relates, nine in number, the only appreciable or probable causes were hemorrhages, diarrhœa, or miasmata. All these causes may be considered as producing an anæmia, which, if long continued, will lead to fatty degeneration. The only objection to this is, that the discharges mentioned, the hemorrhages and the diarrhœa, may be the result of the organic changes, and not their cause.

These cases are the more striking that the patients were all comparatively young. They became, without any known cause, more and more feeble, and died. A fatty degeneration of the heart was the most marked and important occurrence at the autopsies; in some cases the liver and other organs were only moderately fatty. At the same time, there was no excess of fat in other parts, and the patients were not wasted.

To these cases one is added to exemplify the very similar condition of fatty degeneration produced by the excessive use of alcohol.

Dr. Wilks is led by the total absence of *arcus senilis* in these cases, to make some general observations on this pathological condition of the cornea, to which of late so much importance has been attached, as indicating a general fatty degeneration of the body, and more particularly of the heart. He does not believe that it indicates any particular change within the body, but that it accompanies concomitant senile changes in the body generally; the term being still applicable if old age should be premature.

In support of his opinion he gives some facts taken from the post-mortem records of the last two years in the hospital, and adds to the cases he has already given in full five others of fatty heart with no arcus, one where it was "partial," and one very "slight." Seven cases are also given of extreme fatty degeneration with valvular disease, in none of which was there arcus. In fifteen cases in which there was arcus senilis, there was no fatty degeneration of the heart. There is but one case of arcus associated with fatty degeneration of the heart in a young subject, and therefore he considers it altogether exceptional. In those cases, and of these seven are cited, in which the arcus does exist with fatty heart in old people, the change is not so much that of the muscle itself, as of the external fat increasing at the expense of the wall of the right ventricle.

Dr. Wilks thinks it highly probable that a confusion in the expression *fatty heart* may lead to these differences of opinion in regard to the connection of this affection with arcus senilis. Two very different pathological conditions may have been included under one name, and the arcus may be connected with one of them and not with the other. In one of these conditions the muscular tissue of the organ itself has degenerated; in the other there is but little change in the heart, but it is covered with fat. His conclusion is, that the arcus senilis is accompanied by this latter form of fatty heart, and has no connection with the other, but prefers not offering any decided opinion until a great many more observations have been made.

In terminating, some remarks are made in reference to fatty heart in connection with sudden death, and with fatal accidents from the administration of chloroform. In many of the cases of sudden death he has examined, the heart has not been fatty; and, on the other hand, fatty hearts are every week met with in persons who have died a lingering death. He does not believe, either, that there is any connection between the affection of the heart and sudden death during the administration of chloroform.

IX. *On the Causes of Death after Lithotomy.* By THOMAS BRYANT.

The paper of Mr. Bryant is a very interesting and a very useful one. From the *clinical records* of the hospital, 176 cases of lithotomy were collected; and from the *notes of the necroscopic examinations*, together with those from the above that terminated in death, 40 fatal cases were collated. These materials have all been carefully analyzed.

The following table is given to show the ages at which the operation was performed, and its fatality at the different periods:—

	No. of cases.	Fatal cases.
5 years and under	55	3
6 to 10 inclusive	38	...
11 " 20 "	36	4
21 " 30 "	10	...
31 " 40 "	6	...
41 " 50 "	7	4
51 " 60 "	18	10
61 " 70 "	5	3
71 " 80 "	1	1
	176	25 cases, or 14.20 per cent. were fatal.

From this table it must be concluded, contrary to the general opinion, that lithotomy during the first five years is more fatal than during the next quinquennial period, at least among the patients met with in hospital practice. This is attributed by Mr. Bryant to the powers of the child being then insufficient to counteract the depressing tendency of the operation, with the accompanying loss of blood and shock to the system. Another consideration which may be allowed to have some weight is this, that when calculus makes its appearance in very young persons, contrary to what is the case in after-life, it is, as a general rule, among the most miserable and unhealthy, consequently the worst, subjects for a grave operation.

Nearly all of the 25 fatal cases are given in detail, with the history of the *post-mortem* examinations. In 5 cases the patient never rallied after the operation; the ages were 70, 72, 42, 44, and 48. In 6, hemorrhage was the cause of death; and the same number died also from inflammation of the kidneys, from inflammation of the cellular tissue in the pelvis, and from pyelitis and pelvic cellulitis combined. In 3 cases the pelvic cellulitis was associated with accidental causes, 2 with perforation of the rectum, and 1 with hemorrhage. This inflammation of the cellular tissue in the pelvis, which is the most fatal danger of lithotomy, is believed by Mr. Bryant to arise generally without urinary infiltration, but to be "a result of continuity of structure which has become inflamed from the necessary injury inflicted upon it by the operation, or by the presence of a calculus." Five cases were fatal from pyæmia, 1 from acute cystitis, 1 from peritonitis, and 1 from inflammation of the air-passages after chloroform. In this last case, however, it must be said that the operation was performed in a cold theatre, upon a February winter's day. Chloroform, independent of its own special risks, is not judged by Mr. Bryant to have any influence upon the fatality of the operation.

It is to be regretted that the instrument used in opening the bladder is never mentioned, except in one case, one of those in which the rectum was perforated. Here the "double-cutting edged gorget" was made use of. We take it, therefore, that the ordinary gorget was used in all the other operations.

X. *Cases of Retention of the Menses relieved by Puncture through the Rectum.* By HENRY OLDHAM, M. D.

These cases are two in number; in one, the retention of the menses was the result of congenital absence of the vagina; in the other, the vagina had been injured during labour, and its walls adhered together and cicatrized.

These cases illustrate the ease, safety, and success with which the uterus distended with menstrual fluid may be relieved by puncture through the rectum. As a channel for the flow of the menses, the rectum answers as well as an artificial vagina, and no operation should be performed for any other purpose; "it is far better," as Mr. Oldham says, "that marriage should be known to be a physical impossibility, than that its consummation should provoke disgust, disappointment, and estrangement."

In one of these cases, after the opening had been made four times, at as many menstrual periods, the orifice remained open; in the second, after the first operation the patient never returned to the hospital. The instrument preferred is a sharp-pointed bistoury, with lint wrapped round it, leaving about an inch from the point free.

XI. *Cases of Disease of the Pulmonary Artery and its Valves.* By G. WHITLEY, M. D.

This paper contains the histories of three fatal cases of disease of the pulmonary artery and its valves, which had been recently under treatment in the hospital, and the histories of three others connected with preparations preserved in Guy's Museum are appended.

In two cases the affection was diagnosed during life by a well-marked *frémissement cataire*, heard loudest towards the upper part of the left side of the chest. The chief general symptoms present in these cases were anæmia and emaciation.

Two plates are added, for the purpose of representing the condition of the parts in the three recent cases.

XII. *On Abscess of the Brain.* By WILLIAM GULL, M. D.

This paper is one of considerable length, comprising sixty pages; at the same time, it is one of the most interesting and clearly written in the volume. The author thinks that we have no evidence of any such intrinsic perversion of the nutrition of the brain as leads to suppuration, and therefore does not admit the occurrence of *idiopathic* cerebral abscess. It is well to observe that he confines the use of this word to its proper signification, for with some writers it signifies only that the origin is unaccounted for. With the exception of suppuration produced by scrofulous deposit, and of that following direct injury, it is always a secondary result of the suppurative process in some distant part, or of chronic disease about the head. The source of the suppurative tendency it is often difficult to discover; in one of the cases related by Dr. Gull it was found to depend upon chronic suppuration of the mesenteric glands from ileitis in a debilitated subject.

The pathological order of the symptoms in abscess, as deduced from his observations, is headache, local or general convulsions, drowsiness, paralysis, coma. No one of these is pathognomonic; it is their order and duration which give them their characteristic importance. Particular stress is laid upon the headache; "it is different both in character and duration from that symptomatic of tumour. It is rarely paroxysmal and neuralgic, as it is in tumour, but more general and uniform in its expression, as well as more sudden in its rise and acute in its progress." The frequent absence of rigors in cerebral suppuration is noticed.

Sixteen cases of the affection are carefully related, with the *post-mortem* examinations; and to each *remarks* are added.

This paper may be looked upon as particularly valuable as a contribution to our knowledge of purulent infection. In one case (the ninth) there was chronic suppuration of the mesenteric glands, two collections of pus in the spleen, one in the cortical portion of the right kidney, and abscesses in various portions of the brain. According to the generally received theories of purulent infection, the liver in this case should have suffered before these other organs. A fact worthy of remark, in this connection, is this, that abscess generally forms in the white substance, rarely in the gray, though the latter is the more vascular.

XIII. *Paraplegia from Obstruction of the Abdominal Aorta.* By WILLIAM GULL, M. D.

This paper contains the history of a case of paraplegia which began suddenly while the patient, a shipwright, 34 years of age, was at work in a sitting posture. Previous to the attack the man was in good health, or supposed himself to be. This was in the month of March, 1855, and he did not enter the hospital until June.

"On examining the spine, no tenderness or irregularity could be detected, but, on auscultation, a soft bellows-murmur was audible down the back, but most distinctly at the lower angle of the scapula, on the left side. Percussion elicited some dulness where the murmur was most audible. Anteriorly, under the ensiform cartilage and lower third of the sternum, there was a prolonged bellows-murmur, not heard so distinctly upwards in the course of the aorta, or towards the left axilla. There was no pulsation in the abdominal aorta, nor in the arteries of the lower extremities. The legs were cold, the muscles wasted; no œdema nor any venous turgescence in them." The subcutaneous arteries on the front and back of the trunk were enlarging at the present time (August, 1857), and as the arterial communication between the upper and lower parts of the body became more free, the power returned in the lower limbs. No pulsation was yet discoverable in the abdominal aorta or the femoral vessels, or in any of their branches.

This case is as yet incomplete, but it is so remarkable that Dr. Gull has done well in placing it on record.

A plate, containing two figures, is attached to this paper, for the purpose of representing the appearance of the subcutaneous arteries on the abdomen and back.

XIV. *Contributions to the Practical Surgery of New Growths or Tumours.* Series I.—Cancer. By JOHN BIRKETT.

The author of this paper proposes, "in this and the subsequent series of cases, to illustrate, for students more especially, the natural history of every form of new growth which has come under observation within the walls of Guy's Hospital." Though the histories of the cases which he has chosen for this paper are interesting and valuable to every student, they are particularly so to those who have access to the museum containing the preparations to which he makes reference. The costliness of illustrating the text by coloured drawings, rendered such an advantage impracticable, much as it was to be desired by students at a distance.

In several of the cases related it seems evident that considerable advantage was gained by amputation of the limb in which the disease was situated; the operation being performed, of course, not with the hope of radical cure, but of prolonging life and of assuaging pain. This is quite in accordance with Paget's statement, that the removal of the growth would seem to retard the course of cancerous disease that otherwise would be very rapid.

XV. *Remarks on the Wax Models in Guy's Museum, representing Roseola Cholerica and Roseola Variolosa.* By the CURATOR.

A tolerably uniform eruption has been described by many observers as occurring at a certain stage in cholera in the course of the first or second day after reaction with its secondary fever has set in. This eruption is sometimes in large patches resembling roseola; at others, the spots are smaller, more defined, and less vivid; and at others, there is a rash closely resembling scarlatina. These different varieties are represented by five models. The rash styled roseola variolosa, which accompanies an abortive form of smallpox, "that is, a disease in which the most violent constitutional symptoms of variola are present, together with the first indication of an eruption, but the latter suddenly ceasing after the evolution of the rash of which we are now speaking," is represented by four models.

These models were made by the distinguished artist, Mr. Towne; and on account of their excellence he received a medal in the fine art department, at the late Paris Exhibition.

XVI. *Description of a Case in which a Urethro-Vesical Calculus was removed.* By Alfred Poland.

The history of this case was communicated on account of the shape of the calculus, which resembled that to which the name of "bar-shot" and "dumb-bell" has been applied by some surgeons. It assumed "somewhat the shape of an inverted old-fashioned German pipe." It was extracted by means of the incisions usually made in ordinary lithotomy—the laying open of the perineum, and the laying open of the urethra, with partial section of the prostate gland. The patient was twenty years of age, and from early infancy had, from time to time, experienced uneasy sensations and pains in the back and urinary organs.

The following explanation is given of the above case as the most rational: "that whilst young the patient had a small urinary calculus form in the kidney, that this passed down the ureter into the bladder, and subsequently escaped into the pouch of the prostate, where it became impacted and made a bed for itself. Here it gradually grew and attained its present size. At some time, probably only a few years back, calculous deposition took place on the posterior and upper part, which gradually extended into the bladder by means of a small peduncle through the cervix; but when entering the cavity fresh depositions took place, and increasing to the size depicted."

The paper is accompanied by a short appendix of six recorded cases bearing upon the subject. It is illustrated by eight wood-cuts, and a lithographic plate representing a section of the calculus, and also an imaginary sketch of the side view of a bladder, prostate, and penis, showing the probable position of the calculus as met with in the operation.

XVII. *Notes on Cases of Black Urinary Precipitate.* By H. M. Hughes, M. D.

In the last volume of *Guy's Hospital Reports*, together with some other cases of a somewhat similar nature, Dr. Hughes reported one where a young girl, suffering from abdominal disease of a scrofulous character, passed urine which, clear when passed, when boiled and mixed with nitric acid, let fall a dense black precipitate, the chemical constitution of which was not ascertained.

In this communication he gives the history of another, where the same phenomenon was witnessed in the urine, the patient here being a man 50 years of age. In this case, also, there was some abdominal disease, "below the region of the liver was felt a firm tumour, nearly as large as a two-penny loaf, which distinctly passed under the hand placed upon it, when the diaphragm descended upon deep inspiration."

Dr. Hughes states that he has never seen or heard of this except in the two cases recorded, though he has had nearly thirty years' experience in one of the largest hospitals of Britain; "during which time, in many hundreds, perhaps thousands of instances, the urine has been examined by heat and nitric acid."

XVIII. *Sequel of a Case of Successful Trephining of the Skull for Rupture of the Meningeal Artery performed years ago.* By Edward Cock.

The patient whose history is here given had been operated upon in 1841, and the case is fully related in vol. vii., 1st series, of *Guy's Hospital Reports.* He was then forty-six years of age, and the operation was performed to relieve compression of the brain from hemorrhage, there being no fracture of the skull. He left the hospital well with the exception of occasional epileptic fits, and continued so until 1855, when he returned with partial hemiplegia, which had followed one of these attacks. He died in an apoplectic fit a few months afterwards. At the *post-mortem* examination the brain was found softened, and the bloodvessels throughout the brain were extremely diseased; the ventricles contained three or four ounces of blood, and a large quantity of semi-coagulated blood was found in the brain in the neighbourhood of the seat of the operation. As regarded the opening made by the trephine it was not replaced by the growth of any new bone, but it was filled by a tough membrane composed of the integument on one side and the dura mater on the other.

XIX. and XX. These two papers are by Alfred S. Taylor, on *Poisoning by Tartarized Antimony*, with medico-legal observations on the cases of Ann Palmer and others, and on the *Detection of Absorbed Strychnia and other Poisons.*

These papers occupy 133 pages, and possess great interest for the medical jurist, to whose attention we recommend them. W. F. A.

Art. XXII.—*Researches on Epilepsy: its Artificial Production in Animals, and its Etiology, Nature, and Treatment in Man.* By E. Brown-Sequard, M. D., Professor of Physiology at the Cooper Institute, N. Y., etc. etc. Republished from the Boston Medical and Surgical Journal, from Nov., 1856, to Nov., 1857. Boston, 1857. 8vo. pp. 82.

In a course of vivisections, Dr. Brown-Séquard found that certain injuries of the spinal cord, in animals, produced convulsions of an epileptic character. These injuries were—1st. A transverse section of a lateral half of the cord; 2d. A transverse section of the two posterior columns of the cord, of its posterior cornua of gray matter, and of a portion of the lateral columns; 3d. A transverse section of either the posterior columns, or the lateral, or the anterior alone—when the incision has been deep enough to implicate the gray matter; 4th. A transverse section of the entire cord; and 5th. A simple puncture.

Convulsions were more especially the consequence of the first, second, and fourth of these injuries, especially when inflicted on that part of the cord which extends from the seventh or eighth dorsal to the third lumbar vertebra.

In other experiments, few in number, the section of the central gray matter, with but slight injury to the white matter of the cord, was followed by epileptiform convulsions.

The convulsive paroxysms usually occur during the third or fourth week after the injury. In some cases they began during the second week, or a day or two before. At first the paroxysm consists only in a spasm of the muscles of the face and neck, on one or both sides, according to the extent of the transverse incision, and is of short duration. After a few days the paroxysm becomes more complete, and all the parts of the body, not paralyzed, are convulsed.

The parts convulsed vary according to the seat of the spinal injury. When this occurs near the last dorsal vertebra, or the first lumbar, and consists of a section of a lateral half of the cord, the convulsions affect all parts of the body, excepting the posterior limbs on the side of the injury. When the section implicates the two posterior columns, a part of the lateral columns, and the gray matter, the convulsions are universal, but most violent in the anterior parts of the body. When the incision of the cord is on a level with the last dorsal vertebra, and implicates the two anterior or the two lateral columns, the convulsions are ordinarily limited to the anterior portion of the body, but not always; the posterior limbs are at the same time affected with very strong tetanic spasms. After a transverse section of the central gray matter, or of the whole spinal cord in the dorsal region, the convulsions are confined to either the anterior or posterior parts of the body.

The convulsions may occur spontaneously, or after certain excitations, as a forcible suspension of respiration for a couple of minutes, or pinching the skin of certain parts of the face and neck. If there is a transverse section of only one lateral half of the spinal cord, irritation of the side of the face and neck on the same side as the injury gives rise to convulsions; and if both sides of the cord have been injured, irritations of both sides of the face and neck are